How Readers Shape the Content of an Encyclopedia: A Case Study Comparing the German *Meyers Konversationslexikon* (1885-1890) with *Wikipedia* (2002-2013)

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Abstract

How knowledge is negotiated between the makers of encyclopedias and their audiences remains an ongoing question in research on encyclopedias. A comparative content analysis of the published answers of letters to the editor of the German Meyers Konversationslexikon (Korrespondenzblatt) from 1885 and the discussion pages of the article potato of the German Wikipedia (2013) reveals continuities as well as changes in the communication between encyclopedia producers and their audiences. The main reasons why readers and editors communicate are the need for updated factual information, an exchange on editorial principles and the intellectual exchange of ideas on ideological and philosophical questions in relation to the encyclopedic content. Editors and readers attach a lot of importance to the process of verifying information through bibliographical references. Whereas, for the editors of Meyers Konversationslexikon the leading role of experts remains undisputed, Wikipedians work in a contradictory situation. They are on the one hand exposing knowledge production to a permanent process of negotiation, thereby challenging the role of experts, on the other hand relying strongly on bibliographical authorities. Whilst the reasons for the communication between readers and editors of Meyers Konversationslexikon and among Wikipedia contributors coincide, the understanding of the roles of readers and editors differ. The editors of the Korrespondenzblatt keep up a lecturing attitude. As opposed to this, administrators in Wikipedia want to encourage participation and strive to develop expertise among the participating contributors. Albeit power relations between administrators, regular authors, occasional authors and readers continue to exist they are comparatively flat and transient. Regardless of these differences, the comparison between Meyers Konversationslexikon and Wikipedia indicates that the sine qua non for activating an upwards spiral of quality improvement is that readers accept, learn and cultivate common rules - including how to deal with dissent – and identify with the product at least so far as that they report mistakes.

Keywords: *Wikipedia, Meyers Konversationslexikon*, case study, literary reception, general encyclopedia, information behavior, user study.

Introduction

Many years ago I grabbed a copy of the fourth edition dated 1964 of the *Junior Pears Encyclopaedia*, a one-volume young people's reference book, in a second hand bookshop. In the chapter "About This Book" the editor Edward Blishen reflects on the question, "what an encyclopedia is" and starts his strain of thought with an ostensible opposition: "It's [an encyclopaedia] technically [...] a book that tells you everything about everything [...] but in practice most encyclopaedias have to make a fairly sharp choice of the subjects they shall cover, bearing in mind the audience to which they are addressed." He finishes his preface with a plea and a pledge: "[...] a book like this one ought to be shaped not only by a body of contributors but by a body of readers" (Blishen 1961: 5). The question how knowledge is negotiated between the editors of encyclopedias and their audiences remains an ongoing question in research on the history of encyclopedias (Herren; Michel; Rüesch 2007b: 7).

Selectively contrasting the talk pages and the version history in *Wikipedia* "the free encyclopedia that anyone can edit" (Wikipedia: Welcome to Wikipedia 2013) to the regularly published responses to letters to the editor of the 4th edition of the *German Meyers Konversationslexikon (Korrespondenzblatt* (Vol. 1 – Vol. 18)(1885-1890) this study explores differences and similarities between the ways in which readers shape the content of an encyclopedia in the 19th century and in the 21st century. The comparison is intended to root the approach of "an encyclopedia that anyone can edit" into the broader tradition of encyclopedic production and to carve out what is really unique about the way in which knowledge is negotiated in *Wikipedia*. The analysis focuses on the following two research questions: 1) What are the occasions for the communication between editors, readers and contributors and what underlying causes of negotiable knowledge do they indicate? 2) What information on the understanding of the roles of editors, readers and contributors is revealed?

The paper is organized as follows. In the first two paragraphs the encyclopedic tradition is briefly outlined to contextualize *Wikipedia* and *Meyers Konversationslexikon* within the history of encyclopedia production. The main part of the paper consists of a case study comparing the communication between editors and readers in the responses to letters to the editors of *Meyers Konversationslexikon* 1885-1890 and the discussion of the article potato in *Wikipedia* 2002-2013. The conclusion carves out continuities and changes in the communication between editors and readers and links them to modes of encyclopedic production.

Encyclopedia – An Adaptive and Customisable Genre

The concept of encyclopedia underwent many changes and is the object of intense philosophical discussions (Hennigsen 1966; McArthur 1986). For the purpose of

this article a broad understanding of the concept encyclopedia that is in line with the definition given in *WordNet* is applied.

encyclopedia, cyclopedia, encyclopaedia, cyclopaedia (a reference work (often in several volumes) containing articles on various topics (often arranged in alphabetical order) dealing with the entire range of human knowledge or with some particular specialty) (WordNet Search 3. 1: Entry encyclopedia).

Encyclopedias are characterized by:

- 1. a structured arrangement of entries following a given ordering principle that aims to ease the use of the reference work;
- 2. an atomistic approach that favours and encourages a selective access to information and is usually not meant to be read linearly;
- a primarily practical-informative purpose and the aim to eliminate doubts on the reader's side regarding the meaning and use of individual words and concepts (Spree 2013: 550ff).

During the cause of the 19th and 20th centuries general reference works changed considerably. From a text-book-like, in parts moralizing and opinion-forming form of knowledge transfer, its role changed to a kind of prompter or stooge for the educated conversation, a function inseparably connected with the German Konversationslexikon (conversational encyclopedia) that was shaped by the internationally well known Leipzig based publishing house Brockhaus (Keiderling 2005). Since the beginning of the 19th century the rapid increase of published knowledge induced the major publishing houses to a high amount of diversification of the encyclopedic genre that served the growing audience. At the upper end of the price range we find voluminous comprehensive encyclopedias like the Encyclopaedia Britannica written and edited by more than 2 000 contributors, among them well-known academics, and a large amount of namely signed articles. The content is presented alphabetically under a broad lemma that discusses the topic within a wider context. The number of entries lies between 50 000 and 60 000. Usually, references to further literature are provided. Concurrent with the development of the comprehensive encyclopedia, since 1860 the conversational encyclopedia was gradually converted into a type of reference work for which the name Universallexikon (universal lexicon) was coined. A coherent comprehensive presentation of larger topics was replaced by a more fragmented presentation under a narrow lemma to grant access to pieces of (factual) knowledge (Spree 2013: 551). In the 20th century encyclopedia production went through further diversification. The German encyclopedia market was shaped by the two main competitors, Brockhaus and Meyer, which merged in 1984. After the German unification the sale of printed encyclopedias boomed for the last time (Keiderling 2005: 270-378). Since 2005 the competitive pressure on the print-market for encyclopedias by the free Internet encyclopedia Wikipedia has risen noticeably and is referred to as the main reason for the cessation of long-standing encyclopedia projects.¹ Notwithstanding the special position Wikipedia occupies on the encyclopedic

market, regarding its business model as well as the collaborative mode of production, the phenomenon Wikipedia can only be fully understood against the background of the rich encyclopedic tradition (Pscheida 2010: 441ff.). Among others, to confront ahistorical discussions about Wikipedia, Reagle & Loveland (2013), drawing on examples from antiquity onward, pin down the way in which encyclopedic knowledge is produced in Wikipedia in a long tradition. They identify three modes of content production that characterize encyclopedic production then and now: (a) compulsive collection describes encyclopedias that mainly owe their existence to the collecting passion of individuals, (b) stigmeric accumulation describes a way of text production based on revising, combining and rewriting existing texts, in (c) corporate production a group of (expert) authors collaborates more or less closely under an editor or editorial board. Reagle and Loveland conclude that the "distinction between a collectively authored Wikipedia and its individually authored predecessors turns out to be murky" (2013: 5). The basic principles Wikipedians adhere to, the programmatic *Five Pillars*, are an expression of this ambivalence between the commitment towards a long series of precursors from antiquity onwards and the pursuit for a new and more open way of "content" production. Whereas the first and fundamental principle states "Wikipedia is an encyclopedia: It combines many features of general and specialized encyclopedias, almanacs, and gazetteers", the third pillar underlines that "Wikipedia is free content that anyone can edit, use, modify, and distribute" (Wikipedia: Five Pillars 2013). This striving for openness also becomes apparent by the use of the term content instead of more emphatic and contested concepts like knowledge or information.

Encyclopedias and their Audiences

What the lexicographer and educationalist Edward Blishen 1964 (cf. Introduction) described as a requirement – the shaping of an encyclopedia by its readers – is the general case. Readers always have directly or indirectly influenced the content, structure and organization of encyclopedias in various ways. Numerous studies on encyclopedias and their audiences establish not only the social proximity between lexicographers, encyclopedia authors and readers but also the transition and fluency between the roles of the authors/editors and the reading audience (Darnton 1979; Spree 2000: 89 ff; Herren, Paul & Rüesch 2007b: 9-74; Prodöhl 2011: 32-66; Reagle & Loveland 2013). Having the same background as their readers, encyclopedia authors and editors demonstrate a firm understanding of their readers' needs and ways of thinking. At the same time, the body of editors often was anything but homogenous and characterized by a thick network between society and editorial board (Prodöhl 2011: 143). The emergence of new reading audiences, for example after the French Revolution and during the period of the Wars of Liberation (1813-1815) or the European revolutionary movements (1830 – 1848), al-

ways fostered new ideas for lexicographic products like the genres of the German conversational encyclopedia or encyclopedic dictionaries aimed at the so called "lower orders" (Penny Cyclopedia: Prospectus 1832). Apart from these indirect influences, readers were integrated directly into the production process and acting as external experts or informants – the large encyclopedias resorted to a huge army of informants among academics, diplomats, military people or travellers (Spree 2000: 89-149).

Case Study: How the Audience Shapes the Encyclopedic Content 1885-1890 and 2002-2013 – Between Critical Reader and Collaborator

Earlier research situating *Wikipedia* within the long tradition of encyclopedic production is predominantly based on the comparison with well known (lexicographic as well as philosophical) projects of the 18th century, like the French *Encyclopédie* by Diderot and d'Alembert or the *Encyclopedia Britannica* (Haider & Sundin 2010, Reagle 2011: 18 ff, Reagle & Loveland 2013) as well as with visionary encyclopedic approaches like Paul Otlet's Mundaneum (1910) or H.G. Wells World Brain (1936) (Reagle 2011: 17-25). In the present article knowledge production in *Wikipedia* is compared to a popular late 19th century German encyclopedia. In addition to the mentioned encyclopedias, *Meyers Konversationslexikon* is a further adequate and worthwhile object of comparison, since our contemporary everyday notion of what to expect from an encyclopedia is not less influenced by the aforementioned philosophically and epistemically ambitious and sophisticated projects than it is by the late nineteenth century confinement of the genre to a "fact-bound everything about everything" (Bates 1986: 37ff, Spree 2000: 327).

Meyers Konversationslexikon

Initially founded in 1826, the economic success of the publishing house of *Meyer's* encyclopedic productions — it traded under the name *Bibliographisches Institut* — as well as its reputation date from the publication of the 52 volumes of the "Grosse Conversations-Lexikon für die gebildeten Stände" (Large conversational encyclopedia for the educated classes) 1839-1855 (Sarkowski 1976: 10ff). The preface of the first volume was a fervent plea for revolutionary change in the German states. The publication appeared on the scene as a liberal democratic competitor to *Brockhaus*' encyclopedic productions defending free access to knowledge and the ideas of the 1848 revolution (Spree 2000: 229 ff.). During the 19th century the republican liberal-democratic political orientation of the *Bibliographisches Institut* was gradually replaced by a more and more nationalistic tendency, supporting the idea of a constitutional monarchy in the German Reich.

The 4th edition of Meyers Konversationslexikon (1885-1892), discussed in this case study, indicates a decisive change in the publishing policy of the Bibliographisches Institut. The fact that the encyclopedia was published without a programmatic preface can already be interpreted as an implicit dedication to factual information abstaining from any political or ideological positioning. It was only in the preface to the 6th edition (Zur sechsten Auflage von Meyers Konversations-Lexikon: V) from 1909 that the editor explicitly distanced the publication both from the mainly entertaining and conversational direction of the previous editions and from taking sides with right-liberal persuasions in favor of an assumed superior national interest. In a highly ideological text the presentation of positivist scientific knowledge, which served the requirements of a lay audience as well as the university scholar and which was in the national interest, are described as neutral and unbiased (Zur sechsten Auflage von Meyers Konversations-Lexikon: VI). Thus, the 4th edition retrospectively occupies a transitional position between the understanding of the genre of the Konversations-Lexikon as presenting empirical knowledge from a current (liberal political) perspective in a comprehensible and entertaining way and its demeanor as an unbiased authoritative academically vetted source of correct knowledge. The 4th edition was published between 1885 and 1892 in 19 volumes comprising nearly 20 000 pages and about 97 000 lemmata. With 200 000 sold copies the edition was economically very successful (Sarkowski 1974: 118). Most copies were either sold by local bookstores or by travelling booksellers to an upper and middle class audience of business people, public servants and academics (Sarkowski 1976: 118; retrobib – Lexikonkauf 1890).

Wikipedia

Since 2006 the rise of the free online encyclopedia Wikipedia has been constantly accompanied by multifarious research. In their systematic review on research on Wikipedia Okoli and others (2012) report more than 300 publications regarding infrastructure, participation and community-building in Wikipedia. The precondition for Wikipedia's enormous success was the introduction of the Wiki-Software in 2001. It allowed readers to read as well as edit entries directly via their browser. The fact that the Wiki-Software was able to log all changes encouraged the editors to refrain from formal editing in advance and from peer review process and to allow the publication of the articles immediately after an editorial change. Currently, the number of published articles (30 million articles worldwide, 4.3 million in the English version, 1.6 million in the German version) (Wikipedia: Wikipedia 2013) is unsurpassed by any other encyclopedic production. Regardless of the fact that being freely editable has persisted in principle until the present day, over the years Wikipedians have developed a complex organizational structure, which includes distribution of labor as well as a power structure distinguishing between contributors and members of the Wikipedia volunteers' bureaucracy, like administrators, checkusers or ombudsmen (Pentzold 2012; Simonite 2013). These are mainly based on commitment (amount of contributions) as well as persistence of the respective protagonists,⁴ and an entire body of rules and guidelines governing content production (Pscheida 2010: 347-387; Reagle 2011). Although, it is true that most *Wikipedia* users do not get actively involved (editors 33 174 (English) compared to over 19 000 000 (passive) users (Wikimedia: Wikimedia Report Card 2014), the transitions between authors and readers remain fluid.

Comparing the Communication Between Editors and Readers 1885-1890 and 2002-2013

Usually, collaboration between editors and readers/users can only be inferred implicitly from the encyclopedic entries themselves or from the surrounding texts, like prefaces, or uncovered by archival studies, as letters to the editor or the evidences of the communication of the editorial staff with external experts, normally remain unpublished (Spree 2000; Keiderling 2005; Prodöhl 2011). In this respect, the approach of Wikipedia grants a new level of transparency, as it not only offers a plethora of programmatic texts and editorial guidelines but also tools that allow readers to observe the *lexicographer at work*. The version history function records all changes of an article from the first emergence to the current version. Additionally, the production process is accompanied by a talk page that invites contributors to debate on a topic in a larger context or to comment on changes of the article. This amount of transparency of the encyclopedic production process via granting a live view into the workshop of the author/ editor is unprecedented in the history of encyclopedias, however not without precursors. Beginning with the seventh volume of the 3rd edition (1876-78), nearly each volume of Meyers Konversationslexikon was supplemented by a so called Korrespondenzblatt (correspondence paper) consisting of – presumably a selection of – answers to requests and notifications by readers regarding the articles in the respective volume.

Methodological Approach

The subsequent analysis employs a combination of a hermeneutic close reading (Kain 1998) of the contributions and a qualitative content analysis (Mayring 2000) to a) identify expressed reasons for the communication, and b) to more closely describe patterns of communication between readers and editors (Konversations-Lexikon) or user/contributors and administrators (Wikipedia) in order to infer the roles and the habitus the answerer assumes (Coney & Steehouder 2000).

In a first step the genesis as well as the layout and format of the communication are described and analyzed. In the second step units of analysis are determined. In the case of the *Korrespondenzblatt* the response to one letter to the editor (figure 3) is regarded as one communication. Analogically, regarding the ver-

sion history (figure 1) and the talk pages (figure 2), a version change or a topic in the archived discussion pages (topics from 1 to 11 on figure 2) are the basic unit of analysis. The statements are coded for a) reasons for communication like for example request for or passing on of information and b) the assigned rhetorical roles of editors and readers taking into consideration aspects like formality of communication, assumed previous knowledge and politeness. As the focus is on the communication purposes and structure and the topics as such are neglected the comparison of the discussion on multifarious encyclopedia entries (*Korrespondenzblatt*) to the talk pages of the single entry (that as such covers numerous topics) potato in *Wikipedia* is justifiable. The entry potato was chosen as an example for a not obviously controversial topic on an everyday object.⁵



Figure 1: Screenshot Wikipedia Version History

Diskussion:Kartoffel



Figure 2: Screenshot Wikipedia Talk Pages

Korrespondenzblatt to Meyers Konversationslexikon (1885-1890)

In a preface the reasons for starting the *Korrespondenzblatt* are summarized. It owes its formation to the numerous letters to the editor; mainly corrections of petty mistakes and typos as well as improvements of articles employees could not conduct due to insufficient information. The *Korrespondenzblatt* also aimed to explain the structure and organization of the encyclopedia and give background information from the encyclopedia workshop. The editor assumes this information could be useful not only for the individual enquirer but for the audience at large (*Korrespondenzblatt* II 1876: 1). As the *Konversationslexikon* was published in separate numbers the answers were initially published on the cover of each number and eventually collected and published as appendix to each volume. The following analysis is mainly based on the *Korrespondenzblatt* for the 4th edition. The entire *Korrespondenzblatt* amounts to 45 pages. The layout is similar to the main part of the encyclopedia: the text is printed in two columns and the names of the enquirers replace the entry lemma (figure 3). Through this layout decision the

editors succeed in simultaneously presenting the responses as a germane part of the Konversationslexikon and appreciating the enquirers. At the same time a certain degree of formality of the communication is retained. Presumably, the answers were written by a member of the editorial team, who was responsible for the respective topic (Wie ein Konversationslexikon gemacht wird 1879: 771). The topics of the correspondence comprise everything from factual information on geographical details to political and administrative topics to scientific and philosophical questions.

Korrespondenzblatt jum achtzehnten Band.

franken (0,16 Proz.), Unterfranken (—0,06 Proz.) und Oberpfalz (—0,08 Proz.), im württembergischen Jagstefreit (—0,08 Proz.), in Medlenburg-Streitz (—0,08 Proz.) und im oldenburgischen Fürstentum Lübed frage, die jüngst mehrfach in den Blättern besprochen

1012

–0,03 Bro3.). JmJ. 1890 gab es 150 Städte mit mehr als 20,000 Sinw., barunter Berlin mit mehr als 11/2 Mill., 26 Stäbte mit mehr als 100,000 Ginw. (feit 1885 neu hinzugefommen Stettin, Krefelb, Aachen, Halle a. S. und Braunschweig), 21 Städte mit 50-100,000 Einw. (neu hinzugekommen Charlottenburg, Duisburg und Darmstadt) und 103 mit 20—50,000 Einw. (neu Darmstadt) und 103 mtt 20—50,000 Einm. (neu hinzugefommen Solingen, Forst i. L., Düren, Zeitz, Quedlinburg, Natibor, Lüneburg, Wandsbek, Graubenz, Minden, Vrieg, Pirmasenz, Vauken, Keichenz, Kannstatt, Gießen, Eisenach, Apolda, Oldenburg und Greiz). Die Städte mit mehr als 20,000 Sinw. hatten 1890 eine Gesamtbevösserung von 10,494,345 Seelen gegen 1885: 8,819,338 ober mit Einschluß der in den letten Jahren einverleibten Bororte 9,094,046 Seelen. Ihr Wachstum betrug 1885 bis 1890 im jährlichen Durchschnitt 2,86 Proz. (1880 dis 1885: 2,23 Proz.), das aller übrigen Orte nur 0,61 Proz. (1880—85: 0,37 Proz., dagegen 1875—80: 0,89 Proz.). Bgl. auch die im Artifel Deutschland (S. 190 dieses Bandes) gegebene übersicht. Karl Mickel in Breslau. Unter Papierabbruck

versteht man in dem angegebenen Fall den mit Hilfe von ftartem, angefeuchtetem Bapier gewonnenen Abflatich von Inschriften, flachen Reliefs u. bgl. Diefes Berfahren wird neuerdings von den Archaologen bei miffenichaftlichen Forschungsreifen angewendet, um möglichst getreue Kopien ju gewinnen, wenn Zeit und Ort nicht bie Aufnahme einer Zeichnung ober Bhotographie gestatten. Das Bapier wird mit einer Burfte in die Bertiefungen gedrückt und behalt nach dem Trodnen die Gindrude. Dan fann auch folche Abbrüde gewinnen, indem man die Oberfläche des Steins mit einem farbigen Pulver beftreut und das

feuchte Papier aufbrückt.
S. P. in Dimüt. Das Buch von Pfanhauser:

murbe, finden Sie in vorliegendem Banbe (S 181) einen besondern Artifel, aus dem hervorgeht, daß ge-



genwärtig eine abfolut genaue Rarte ber Datum: grenze noch nicht gegeben werben kann. Das vor-stehende Kärtchen zeigt die Datumgrenze, wie sie nach ben bis jest befannten Berhältniffen anzunehmen ift. Frau Thereje S. in Maing. Das meltbefannte

Figure 3: Clipping Korrespondenzblatt XVIII. Vol., 1890

An anonymous article about the third edition of Meyers Konversationslexikon in the illustrated magazine Daheim from 1879, based on "authentic notes", grants a rare insight into the workshop of an encyclopedia and is suitable to further contextualize the communication in the Korrespondenzblatt within the complete production process (Wie ein Konversationslexikon gemacht wird 1879: 770). According to this article, the lexicographic practice was characterized by a high amount of division of labor between the editorial board, the authors and the editors of the individual articles. The main responsibility of the editorial board was to handle the wealth of material and to solicit qualified authors. The description of the actual production process corresponds to what Reagle and Loveland (2013) describe as "stigmeric accumulation": the 70 000 articles of the 2nd edition were cut out and pasted on independent paper sheets. Subsequently, the lines were counted to get an overview about the scale of the different knowledge domains. On this basis, the editorial board decided on the appropriate space for each subject field for the new edition. The editorial board also employed so called "Notizensammler" (note collectors) who monitored around 50 national and international newspapers mainly for biographical and geographical facts (Wie ein Konversationslexikon gemacht wird 1879: 770). The effective writing and editing was carried out by dedicated editorial teams in various university cities (770). The actual writing of the articles, according to the anonymous author, only accounted for a relatively small amount of work involved in the production of the encyclopedia. Particular attention had to be paid to checking of the listed "authorities", whereby the German "Autoritäten" refers to bibliographic sources as well as to eyewitnesses and personal informants (771). This corresponds with the introduction to the Korrespondenzblatt that assigns the letters from the subscribers a similar role as the personal informants and appreciates their "voices" as valuable hints for the execution of the project. The subscribers are cordially invited to carry on pointing to effective errors (Korrespondenzblatt II 1876: 1).

Wikipedia Version History and Talk Pages of the Articles Kartoffel/potatoe (2002-2013)

In *Wikipedia* the articles are written collaboratively. The editing process of the article "Kartoffel" conforms to the findings of Kallass regarding the writing process in Wikipidia. It is heterogeneous, unstructured and long (Kallass 2008: 3). The article Kartoffel developed gradually from a four sentences entry started in September 2002. Between 2002 and 2013 the article was edited more than 2696 times and has grown to 60 332 bytes by May 2013 (Wikipedia: Kartoffel: Versionsgeschichte (2013). By April 2004 a consolidated formal structure had been achieved and the article was suggested as excellent article. Since 2002 the community has been working constantly on the article, albeit at varying editing speeds. For the first 500 versions (2006-02-24) roughly 51 months were needed whereas the next 500 versions only took 8 months. The version history as well as the talk pages exhibit many small changes, like the addition of new facts as well as discussions on the structure and the transfer of content in separate articles.

The tone is factual, sometimes chatty and usually friendly. For instance, in 2004 the deletion of some passages in the article is discussed. User mmr insists on

the cancellations after the user M_mb had revoked them. In the end, user M_mb complies to the changes although – she/he explicitly mentions – she/he is not convinced. Common ground between the collaborators can be found as they both agree that two different articles should never share identical text (Wikipedia: Diskussion Kartoffel: Kandidat für "Exzellenter Artikel" 2004). By 2007 the article had changed so much through occasional additions that the structure got completely lost. The user Carstor, who also seems to have administering rights or at least a status above a normal registered user, suggested a complete restructuring of the article as it contained too much how-to information and had degenerated into a mere conglomeration of facts. Although, during the review process she/he obviously nearly lost patience and used strong language ("meine Fresse" (Bugger me)) she/he is careful to keep her/his fellow authors informed that she/he saved the previous version in case someone should disagree with the changes (Wikipedia: Diskussion Kartoffel: Stand vor dem Umbau 2007). In April 2007 Carstor entered the article in the list for quality management biology. As a reaction to this step a short discussion renegotiating author roles took place. A user complains that the page is – as he assumes – as a consequence of the quality management measure still blocked for further editing. Carstor resolves this as a misunderstanding explaining to the complaining user that he only needs to register as a user to be allowed to work on the article (Wikipedia: Diskussion Kartoffel: Stand vor dem Umbau 2007). Although, Carstor makes a considerable number of suggestions for the restructuring process, he is careful not to dominate the discussion and effectively achieves that users Griensteidl and Denis Barthel join in the revising process. Usually, the discussion remains factual spiced with scarce teasing remarks like Denis Barthel's "would I contradict a future main author" (Wikipedia: Diskussion Kartoffel: Stand vor dem Umbau 2007). To sum up, the Wikipedia community managed to constantly improve the article over a period of more than ten years. Dozens of contributors collaborated in different roles and with varying amounts of commitment. Apart from a few blockings due to vandalism the contributors acted in concert and focused on their common topic. In the few cases of stagnation or discord the resorting to existing rules and guidelines (like neutral point of view, structure templates, incentives like labeling as article worth reading and agreed quality management tools) sufficed to calm the waves and stimulate constructive writing.

Continuity and Change in the Communication of Editors and Readers as Collaborators

The comparison of the version history and the talk pages in *Wikipedia* on the article potato and a close reading of the 19 issues of the *Korrespondenzblatt* (1885-1892) reveal a considerable amount of continuity in regard to the first research question concerning reasons for a communication between readers and editors,

respectively among *Wikipedia* collaborators with different levels of expertise. These can be subsumed under three main headings:

1) Satisfying the need of readers and contributors for updated factual information

A considerable part of the communication between readers and editors or among the contributors simply serves as an exchange of factual information.

- a) Requesting additional information and/or updated information. Not surprisingly the communication between readers and editors or among collaborators simply serves the exchange of topical additional information. W. Walter wishes to be updated on the results of the census, Rud. Herman wants to know which river is longer, the Mississippi or the Amazonas (Korrespondenzblatt zum vierten Band 1885) and Dr. H. wishes elucidation on the name of Austrian military leaders (Korrespondenzblatt zum siebten Band 1890). Wikipedians constantly exchange and update information for example regarding the exact amount of starch in potatoes or their geographical origin (Wikipedia: Talk: Potato: Edit request 2012).
- b) Asking for guidance for everyday life. Unlike Meyers Konversationslexikon as such, the Korrespondenzblatt provides the enquirer with detailed advice on practical questions like finding suitable accommodation for German nursing students in Paris or positive and negative effects of tobacco (Korrespondenzblatt zum fünften Band 1886). Independent of the actual work on the article itself, the authors of the article Kartoffel in Wikipedia discuss whether the amount of solanin contained in potato peel is harmful to humans. In the discussion they also resort to commonplace reasons like the eating habits of a contributor's grandmother (My granny eats them with the peels and she is healthy/fine) (Wikipedia: Diskussion Kartoffel: Kartoffelschalen Problem 2010).

2) Editorial principles

A large amount of the communication revolves around editorial aspects of the encyclopedia.

a) Suggesting editorial improvements. Readers of Meyers Konversationslex-ikon as well as contributors in Wikipedia make numerous suggestions regarding grammar; punctuation (Wikipedia: Talk Potato: Grammar review 2012) and layout or they exchange information on pronunciation. Reader P. V. in D. receives an extended answer on his request regarding the correct pronunciation of the family name Beaconsfield based on a personal request from the vicar of Beaconsfield (Korrespondenzblatt zum ersten Band 1885). In this category also belong b) metadiscussions on the functions of an encyclopedia. A recurring reason for communication between editor and readers is the reassurance about the purpose and function of an encyclopedia as well as negotiating what content should be included and excluded. The editors of the Korrespondenzblatt for example lecture their

enquiring readers that daily news, information on small languages, biographies of Greek aristocrats (*Korrespondenzblatt* zum dreizehnten Band 1889) or authors of trashy literature and not yet verified information are not incorporated in the encyclopedia (*Korrespondenzblatt* zum dritten Band 1886). In the *Wikipedia* version history and talk pages on the article Kartoffel / potato the contributors discuss intensively what content should be included or excluded like for example references to potato recipes (Wikipedia: Diskussion Kartoffel: Gerichte 2003). Although, the scope of *Wikipedia* regarding everyday culture is broader than that of the *Konversationslexikon* the exclusion criteria are similar and include the exclusion of daily news as well as not yet verified information. *Wikipedia* does not exclude biographies of authors of pulp fiction on principle, however the inclusion of biographies as a separate lemma is bound by certain conditions like "significant coverage" – *Wikipedia* even introduces the term of "low-profile individual" (Wikipedia: Who is a low profile individual? 2013) – and not of "mere short-term" interest (Wikipedia: Notability 2013).

3) Intellectual exchange of ideas on ideological and philosophical convictions

The communication between readers and editors as well as between the contributors of Wikipedia articles is also a forum for serious philosophical and political debates. In the Korrespondenzblatt we find a) lengthy philosophical or academic discourses on the meaning of various philosophical concepts like realism, conceptualism or the political role of Wallenstein (Korrrespondenzblatt zum vierten Band). Authors of the article potato in Wikipedia in 2012 discuss at some length the dispute between Chilean and Peruvian scientists whether the potato variety brought to Europe was adapted to long day conditions (Chilean) or short day conditions (Peruvian) (Wikipedia: Talk: Potato: Origin). In the context of encyclopedia production b) claiming or contesting academic authority can be interpreted as a more subtle form of dealing with ideological disagreement than an open dispute on ideological or political topics. In the Korrespondenzblatt a critical comment in an article of the Konversationslexikon on the ultramontane⁸ historian Janssen is justified by remarking that protestant critics had founded their assessment academically and that parity is a non entity in academic appraisement (Korrespondenzblatt zum siebzehnten Band 1890). In this case recourse to academic/scientific authentification is used as a strategy to defend bias. In the talk pages on the German article "Kartoffel" ("potato") in 2007 the contributors discuss the relationship between science and truth and whether it is correct to simply equate scientific and true. The discussants compromise about the statement that a reference to a considerably reliable published source is more credible than the idea of some sort of user (Wikipedia: Diskussion Kartoffel: Einführung in Europa 2007). Readers, editors and contributors of Meyer as well as of Wikipedia resort to c) claiming and defending a (neutral) point of view. In the Korrespondenzblatt we find a striking example of how referring to a neutral point of view can be used to

justify bias. Replying to a critical comment of Müller in Alt-Dombrowo the editor defends the national-liberal conviction of the *Konversationslexikon* claiming that the presentation of current political history cannot be written in a way that suits all political parties. He backs his response with recourse to historical scholarship. Historians had agreed, so the editor, that history could not and should not be objective und unbiased and that a historian had to write from a political conviction to assess political occurrences. Moreover, the national-liberal conviction is defended as a mediating political position. An adequate position to suit the encyclopedia's striving for completeness, correctness, justness and a lenient judgement that seeks to avoid extremes (*Korrespondenzblatt* zum siebzehnten Band 1890). References to the neutral point of view are common in the *Wikipedia* talk pages too, even in politically not controversial articles like potato. In the talk pages the wording "a really good salad" is discarded because the encyclopedic objectivity of the expression is contested as it sounded more like a housekeeping suggestion (Wikipedia: Diskussion Kartoffel: Verwendungszweck 2012).

Whereas the reasons for communicating between readers and editors of Meyers Konversationslexikon and among contributors of an article in Wikipedia coincide significantly the understanding of the role readers and editors should play in the production process — I investigated in my second research question — partially differ. In the Korrespondenzblatt as well as in Wikipedia readers/contributors appear as sovereign subjects, who demand and grant additional information. As the readers' contributions are not quoted directly in the Korrespondenzblatt, they can only be inferred indirectly. Mostly, from the air of the answer, it seems as if the editors are responding to an inquiring and self-confident audience. Even though the editors of the Korrespondenzblatt treat their readers respectfully on an equal footing, they keep up a lecturing attitude. For example E. v. Bülow in B. is advised of the fact that the article "labor colony" ("Arbeiterkolonien") is anything but ignored as the relevant information is subsumed under the article colonies of the poor ("Armenkolonie"). Reader v. M. in Neiße is politely reminded that it is beyond the task of Meyers Konversationslexikon to deal with the historical development of the different countries in addition to comments on the military, as the general interest is served better by a reliable account of the current situation. However, the reply carries on, abiding by his wish a short outline of the English military history is provided in the Korrespondenzblatt (zum sechsten Band 1886).

Notwithstanding the fact that most *Wikipedia* users do not get actively involved, the transition between authors and readers is fluid. The talk pages show examples where the active contributors try to put themselves in the shoes of the (passive) readers. For example Berlin-Jurist assumes that other readers, especially non biologists, would be interested in a passage on storage of potatoes (Wikipedia: Diskussion Kartoffel: Lagerung 2008) and in 2011 one author complains about the extensive use of scientific terminology "as if Wikipedia were a university reference work" (Wikipedia: Diskussion Kartoffel: Zu Fachspezifisch formu-

liert 2011). Although there is a certain amount of hierarchical behavior recognizable among contributors – mainly derived from different degrees of personal commitment – the power relation between administrators, regular authors, occasional authors and readers is flat and transient. The version history and the talk pages reveal that parts of the article content may very well originate from personal everyday experiences on behalf of the participating contributors. However, in the resulting article facts are always backed by published sources, although during the review process contributors often resort to commonplace information and everyday problems – like expertise from an acquainted potato farmer. The authors are bound together by the common goal of producing a trustworthy article worth reading and display a high degree of identification with the article. The results of the analysis coincide with Sundin's (2011) observation that the writing process often needed an external impulse (ambitious author, threat of change of status, discussion of certain facts) to trigger more structured epistemic work.

Conclusion

Not just since the rise of *Wikipedia* in the 21st century, readers have been shaping encyclopedias either by their critical remarks or their questions regarding "the organization" of the work. Already at the end of the 19th century, the editors of *Meyers Konversationslexikon* learned to appreciate letters to the editor as a way of communicating with their subscribers and welcomed it as a supplemental way to promote the encyclopedia and feed in current information. They explicitly exploited the exchange of ideas with the audience as valuable incentive to improve the lexicographical principles such as the access structure of the encyclopedia as well as to eliminate factual mistakes. The critical remarks of the readers also served as an inducement to account for ideological as well as political positions advocated by *Meyers Konversationslexikon*. To determine to what degree *Wikipedia* and *Meyers Konversationslexikon* are part of the same encyclopedic tradition I finish with a hypothetical question. Which, if any, of the famous five pillars, the credo of *Wikipedians*, would readers and editors of *Meyers Konversationslexikon* have subscribed to?

- 1. Wikipedia is an encyclopedia
- 2. Wikipedia is written from a neutral point of view
- 3. *Wikipedia* is free content that anyone can edit, use, modify, and distribute
- 4. Editors should treat each other with respect and civility
- 5. *Wikipedia* does not have firm rules (Wikipedia: Five Pillars 2013, November 11)

From what we have seen before, it follows, presumably all of them, except the third one. While the readers sometimes probably wished to directly modify the content of the encyclopedia the editors vehemently defended their professional expertise and responsibility. In this respect they keep up the claim of a certain social and political guiding role of the encyclopedia. It is also likely that readers and editors of Meyers Konversationslexikon would have agreed that an encyclopedia should be written from a neutral point of view. Neutral was understood as more or less synonymous to the political position of the national-liberal political camp as a kind of mediating position between the opposing political camps. This comes with no surprise taking into consideration the social and political background at the end of the 19th century. The German Reich was a constitutional monarchy divided into fiercely opposing political and ideological camps namely national (or national and liberal), catholic and socialist (Wehler 1985). As we have seen, this understanding of the neutral point of view could result in a highly ideological argumentation. For Wikipedians adopting a neutral point of view means explaining major points of view, weighting them with respect to their prominence and characterizing information rather than debating it (Wikipedia: Five Pillars 2014). As could be seen in the talk pages, a policy that is based on a neutral point has to face constant inherent contradictions because in Wikipedia the neutral point of view results from a constant negotiation among the contributors. The transparency and openness of the editing process help to constrain the deployment of the neutral point of view argument in an ideological manner. This can also be interpreted as a strategy to neutralize political dissent in favor of the common purpose to produce an encyclopedia. Regarding pillar five, the absence of firm rules, although Meyers Konversationslexikon adheres to editorial principles, frequent deviations from a given structure occur. For example the actual coverage of an article depended to a high degree on the accessibility of material and information.

All three models of encyclopedic production mentioned by Reagle and Loveland (2013) (compulsive collection, stigmeric accumulation, corporate production) can be found in *Wikipedia*. The dominant model of *Meyers Konversationslexikon* is stigmeric accumulation. The *Korrespondenzblatt* as well as the "view in the workshop" illustrate that at least the informants and authors also worked under the imperative of compulsive collection. In their — sometimes justifying, however never apologetic — responses to the audience the editors take care to ensure their role as experts both regarding factual correctness and opinion leadership in political and academic (scientific) questions as well as proving their professional expertise as information specialists regarding the introduction of forward looking editorial principles. As opposed to this, administrators in *Wikipedia* strive to encourage participation and build expertise among the participating contributors. The high amount of "nitty gritty daily cleaning work and other small edits" compared to debating the actual content, Sundin (2011:20) observes in his

ethnographic study on Wikipedia is not limited to Wikipedia, but rather seems to be a general characteristic of the editing process of encyclopedias (Wie ein Konversationslexikon gemacht wird 1879: 771). The comparison shows that readers and editors in Meyers Konversationslexikon as well as Wikipedia contributors attach great importance to the process of verifying information through bibliographical references. In this respect, Wikipedians work in a constant contradiction, on the one hand exposing knowledge production to a permanent process of negotiating thereby challenging the role of experts, on the other hand relying severely on bibliographical authorities. Leaving aside the differences concerning the amount of reader contributions to the encyclopedia, the comparison of Meyers Konversationslexikon with Wikipedia confirms that the sine qua non for activating an upwards spiral of quality improvement is that readers feel responsible for "their" encyclopedia and learn, accept and cultivate common rules – including how to deal with dissent – and identify with the product at least so far as that they report errors. The case study could demonstrate that the compliance with Edward Blishen's request that an encyclopedia should always be shaped by its readers is indeed viewed as an important aspect of successful quality management by readers as well as editors.

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Notes

- Wissenmedia, the current publisher of the German Brockhaus encyclopedia, which in recent years changed its publisher for several times announced in July 2013 the step-by-step cessation of the house-to-house distribution by mid 2014 and the closure of updating the online version by 2020 (Roesler-Graichen 2013).
- It is an irony of history that the Bibliographisches Institut in 1984 merged with its former competitor F.A. Brockhaus of Wiesbaden to Bibliographisches Institut & F.A. Brockhaus AG (Keiderling 2005: 277).
- It is an irony of history that the Bibliographisches Institut in 1984 merged with its former competitor F.A. Brockhaus of Wiesbaden to Bibliographisches Institut & F.A. Brockhaus AG (Keiderling 2005: 277).
- In the German article Wikipedians the example of the history of the article on the Hermannstraße (Berlin) is given. Due to the commitment and personal involvement of 'normal' users the article developed from an entry that was initially suggested for deletion as it did not

- meet the notability criteria into an article marked as excellent (Wikipedia: Wikipedianer 2014).
- The choice also seemed natural to me as I used the example in my history of the genre of the popular encyclopedia in Germany and Great Britain in the 19th century (Spree 2000: 149-191).
- The analysis is based on the online version of the fourth edition of Meyers Konversationslex-ikon 1885-1890 at retrobib (Meyers Konversationslexikon (1885-1890))
- In the documented case study the collaboration process went always smoothly. The fact that Wikipedians over the last ten years have developed a sophisticated system for dispute resolution consisting of guidelines as well as formalized processes like third opinion, formal mediation and arbitration indicates that this is of course not always the case and that conflicts do happen (Wikipedia: Dispute resolution (2014), Reagle 2011: 45-137). Nevertheless, a study by Kim Osman on the talk pages of the article Australia very much coincides with the findings on the article potato. Osman describes the collaboration process as quite similar to traditional forms of quality control as a "generative friction, regulated by references to policy" (Osman 2013: 6).
- Ultramontane signifies a person who places strong emphasis on the prerogatives and powers of the institution of the Catholic church and the Pope. (Conzemius 2002).
- ⁹ As entry date March 2007 is mentioned however the archive dates from 2006.

References

Bates, Marcia J. (1986): "What Is a Reference Book: A Theoretical and Empirical Analysis", *RQ*, 26, 37-57.

Blishen, Edward (ed.) (1961): Junior Pears Encyclopaedia, London: Pelham Books.

Coney, Mary B. & Michael Steehouder (2000): "Quicklist for Designing Personas: 'Role Playing on the Web: Guidelines for Designing and Evaluating Personas Online'", *Technical Communication*, 47:3.

Conzemius, Victor (2002): "Ultramontanismus", Theologische Realenzyklopädie, 34, 253–263.

Darnton, Robert (1979): *The Business of Enlightenment: A publishing history of the Encyclopédie* 1775-1800, Cambridge, Mas. [etc.]: The Belknap Press of Harvard University Press.

Haider, Jutta & Olof Sundin (2010): "Beyond the legacy of the Enlightenment? Online encyclopedias as digital heterotopias", *First Monday*, 15:1:

http://firstmonday.org/ojs/index.php/fm/article/view/2744/2428, (accessed 1 February 2014).

Hennigsen, Jürgen (1996): "Enzyklopädie.' Zur Sprach und Bedeutungsgeschichte eines pädagogischen Begriffs", *Archiv für Begriffsgeschichte*, 10, 271-362.

Herren, Madeleine (2007): "General Knowledge and Civil Society: An accurate and popular view of the present improved state of Human Knowledge", Herren, Madeleine, Paul Michel & Martin Rüesch (eds), 489-509.

Herren, Madeleine, Paul Michel & Martin Rüesch (eds) (2007a): Allgemeinwissen und Gesellschaft: Akten des internationalen Kongresses über Wissenstransfer und enzyklopädische Ordnungssysteme, vom 18. bis 21. September 2003 in Prangins [General Knowledge and Society, Proceedings of the International Conference on Knowledge Transfer and Organising Systems of Encyclopaedias, September 18 to 21, 2003, Prangins.], Aachen: Shaker.

Herren, Madeleine, Paul Michel & Martin Rüesch (2007b): "Unvorgreifliche Gedanken zu einer Theorie des Enzyklopädischen: Enzyklopädien als Indikatoren für Veränderungen bei der Organisation und der gesellschaftlichen Bedeutung von Wissen", Madeleine Herren & Paul Michel & Martin Rüesch (eds): Allgemeinwissen und Gesellschaft: Akten des internationalen

- Kongresses über Wissenstransfer und enzyklopädische Ordnungssysteme, vom 18. bis 21. September 2003 in Prangins, 9-74.
- Kain, Patricia (1998): "How to do a close reading", *Harvard College Writing Center*: http://writingcenter.fas.harvard.edu/pages/how-do-close-reading (accessed 1 February 2014).
- Kallass, Kerstin (2008): "Artikelentstehung in der Wikipedia: Zu Textkonstitutionsmustern und Schreibprozessen bei Wikipedia-Artikeln", Berichte des DFG Forschungsprojekts "Netzwerkkommunikation im Internet", 8:3: http://www.netzwerke-im-
 - internet.de/fileadmin/downloads/Bericht2008-3-Wikipedia.pdf, (accessed 1 February 2014).
- Keiderling, Thomas (ed) (2005): F. A. Brockhaus 1905–2005, Leipzig: Brockhaus.
- Lewandowski, Dirk & Ulrike Spree (2011): "Ranking of Wikipedia articles revisited: Fair ranking for reasonable quality?", *Journal of the American Society for Information Science and Technology*, 62:1, 117-132.
- Mayring, Philipp (2000): "Qualitative Content Analysis [28 paragraphs]", Forum Qualitative Socialforschung / Forum: Qualitative Social Research, 1:2, Art. 20: http://nbn-resolving.de/urn:nbn:de:0114-fqs0002204 (accessed 1 February 2014).
- McArthur, Tom (1986): Worlds of reference: Lexicography, learning and language from the clay tablet to the computer, Cambridge, New York, New Rochelle u.a.: Cambridge University Press.
- Meyer, Joseph (1830-1852): Das große Conversations-Lexicon für die gebildeten Stände, Hildburghausen: Bibliographisches Institut, 1 (1840).
- Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens. (4th ed.), Leipzig; Wien: Verlag des Bibliographischen Instituts, 19 Vols. Digitized version at retro bib.: http://www.retrobibliothek.de/retrobib/stoebern.html?werkid=100149 (accessed 1 February 2014).
- Okoli, Chitu, Mohamad Mehdi, Mostafa Mesgari, Finn Årup Nielsen & Arto Lanamäki (2012): WikiLit: A literature review of scholarly research on Wikipedia: http://ssrn.com/abstract=2021326 (accessed 1 February 2014).
- Osman, Kim (2013): "The role of conflict in determining consensus on quality in Wikipedia articles", *Proceedings of the 9th International Symposium on Open Collaboration* (WikiSym '13). ACM, New York, NY, USA, Article 12, 6 pages. DOI=10.1145/2491055.2491067 http://doi.acm.org/10.1145/2491055.2491067 (accessed 1 February 2014).
- Penny Cyclopedia: Prospectus (1832). In: S.D.U. K. (Society for the Diffusion of Useful Knowledge) Minute book 1832-1841, Appendix p. XXIII
- Pentzold, Christian (2012): "Geschlossene Gesellschaft? Wikipedia zwischen Freiheit und Kontrolle", *Bundeszentrale für Politische Bildung*:
 - http://www.bpb.de/gesellschaft/medien/wikipedia/145810/geschlossene-gesellschaft?p=1 (accessed 1 February 2014).
- Prodöhl, Ines (2011): Die Politik des Wissens: Allgemeine deutsche Enzyklopädien zwischen 1928 und 1956, Berlin: Akademie Verlag.
- Pscheida, Daniela (2010): Das Wikipedia-Universum: Wie das Internet unsere Wissenskultur verändert, Bielefeld: transcript Verlag.
- Reagle, Joseph M. (2011): *Good Faith Collaboration: The Culture of Wikipedia*, Cambridge, Massachusetts: MIT Press.
- Reagle, Joseph M. & Jeff Loveland (2013): "Wikipedia and Encyclopedic Production', New Media & Society, January 15, 2013 (only preprint).
- Retrobib (2012): Lexikonkauf 1890:
 - http://www.retrobibliothek.de/retrobib/meyers/meyers lexikonkauf 1890.html (accessed 1 February 2014).
- Roesler-Graichen, Michael (2013): "Ende einer Lexikontradition", *Boersenblatt.net*: http://www.boersenblatt.net/625205/ (accessed 1 February 2014)
- Sarkowski, Heinz (1976): Das Bibliographische Institut. Verlagsgeschichte und Bibliographie 1826-1976, Manheim: Bibliographisches Institut.
- Simonite, Tom (2013): "The Decline of Wikipedia", *MIT Technology Review:* http://www.technologyreview.com/featuredstory/520446/the-decline-of-wikipedia/ (accessed 1 February 2014)

- Spree, Ulrike (2000): Das Streben nach Wissen: Eine vergleichende Gattungsgeschichte der populären Enzyklopädie in Deutschland und Großbritannien im 19. Jahrhundert, Tübingen: Niemeyer.
- Spree, Ulrike (2013): "Wörterbücher und Enzyklopädien", Rainer Kuhlen, Wolfgang Semar & Dietmar Strauch (eds.): *Grundlagen der praktischen Information und Dokumentation*, Berlin & Boston, MA.: De Gruyter Saur, 2012, 550-559.
- Sundin, Olof (2011): "Janitors of Universal Knowledge: Constructing Knowledge in the Everyday Life of Wikipedia editors", *Journal of Documentation*, 67:5, 840-862: http://lup.lub.lu.se/luur/download?func=downloadFile&recordOld=1693489&fileOld=2277516 (accessed 1 February 2014).
- Wehler, Hans-Ulrich (1985): The German Empire, 1871–1918, Oxford: Berg.
- "Wie ein Konversationslexikon gemacht wird" (1879): Daheim 15:1, 770-772.
- WordNet Search 3.1: Entry encyclopedia: http://wordnetweb.princeton.edu/perl/webwn (accessed 1 February 2014).
- Zur sechsten Auflage von Meyers Konversations-Lexikon (1909): *Meyers Großes Konversations-Lexikon. Ein Nachschlagewerk des Allgemeinen Wissens*, 6. edition. Vol. 1, Leipsic, Vienna: Bibliographisches Institut, V-VIII.

Sources

- Korrespondenzblatt II (1876): Meyers Konversationslexikon: Eine Encyklopädie des allgemeinen Wissen, (3rd ed.), 7, Leipzig; Wien: Verlag des Bibliographischen Instituts.
- Korrespondenzblatt (Vol. 1 Vol. 18)(1885-1890): *Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.)*, Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 1. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/stoebern.html?werkid=100149 (accessed 6 November 2013).
- Korrespondenzblatt zum ersten Band (1885-06-25): Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.), Leipzig; Wien: Verlag des Bibliographischen Instituts: http://www.retrobibliothek.de/retrobib/seite.html?id=101236 (accessed 1 February 2014).
- Korrespondenzblatt zum dritten Band (1886-01-146): Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.), Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 3. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/seite.html?id=103345 (accessed 1 February 2014).
- Korrespondenzblatt zum vierten Band (1886-05-06): *Meyers Konversationslexikon (1885-1890)*: *Eine Encyklopädie des allgemeinen Wissens, (4th ed.)*, Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 4. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/seite.html?id=104392 (accessed 1 February 2014).
- Korrespondenzblatt zum fünften Band (1886-09-236): *Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.)*, Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 5. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/seite.html?id=105440 (accessed 1 February 2014).
- Korrespondenzblatt zum sechsten Band (1886-12-09): *Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.)*, Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 6. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/seite.html?id=106468 (accessed 1 February 2014).
- Korrespondenzblatt zum dreizehnten Band (1889-03-14): *Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.)*, Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 13. Digitized version at retro bib.:
 - http://www.retrobibliothek.de/retrobib/seite.html?id=113872 (accessed 1 February 2014).
- Korrespondenzblatt zum siebzehnten Band (1890-05-29): Meyers Konversationslexikon (1885-1890): Eine Encyklopädie des allgemeinen Wissens, (4th ed.), Leipzig; Wien: Verlag des Bibliographischen Instituts, Vol. 17. Digitized version at retro bib.,
 - http://www.retrobibliothek.de/retrobib/seite.html?id=118223 (accessed 1 February 2014).

Wikimedia: Wikimedia Report Card (2014): http://reportcard.wmflabs.org/ (accessed 1 February 2014)

Wikipedia: CI.(2014): http://en.wikipedia.org/wiki/Special:AllPages/CiT (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel/Archiv (2003-2013):

http://de.wikipedia.org/w/index.php?title=Diskussion:Kartoffel/Archiv&oldid=126734809 (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Einführung in Europa (2007):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Einf.EF.BF.BDhrung_in_Europa (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Gerichte (2003):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Gerichte.3F. (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Kandidat für "Exzellenter Artikel" (2004):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Kandidat f.C3.BCr .22Exzellenter Arti kel.22 (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Kartoffelschalen Problem (2010):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Kartoffelschalen_Problem (accessed 1 February 2014)

Wikipedia: Diskussion Kartoffel: Lagerung (2008):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Lagerung (accessed 1 February 2014)...

Wikipedia: Diskussion Kartoffel: Stand vor dem Umbau (2007):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Stand_vor_Umbau (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Verwendungszweck (2012):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Verwendungszweck (accessed 1 February 2014).

Wikipedia: Diskussion Kartoffel: Zu Fachspezifisch formuliert (2011):

http://de.wikipedia.org/wiki/Diskussion:Kartoffel/Archiv#Zu Fachspezifisch formuliert (accessed 1 February 2014).

Wikipedia: Dispute resolution (2014):

http://en.wikipedia.org/w/index.php?title=Wikipedia:Dispute resolution&oldid=586894917 (accessed 1 February 2014).

Wikipedia: Five Pillars (2014):

http://en.wikipedia.org/w/index.php?title=Wikipedia:Five_pillars&oldid=593161599 (accessed 1 February 2014).

Wikipedia: Good article criteria (2013):

http://en.wikipedia.org/w/index.php?title=Wikipedia:Good article criteria&oldid=584280837 (accessed 1 February 2014).

Wikipedia: Kartoffel (2012): http://de.wikipedia.org/w/index.php?title=Kartoffel&oldid=22723 (accessed 1 February 2014).

Wikipedia: Kartoffel: Versionsgeschichte (2013-05-26):

http://de.wikipedia.org/w/index.php?title=Kartoffel&action=history&year=2013&month=5&tagfilter= (accessed 1 February 2014).

Wikipedia: Notability (2013):

http://en.wikipedia.org/w/index.php?title=Wikipedia:Notability&oldid=585175841 (accessed 1 February 2014).

Wikipedia: Statistics (2013-06-19): http://en.wikipedia.org/wiki/Wikipedia:Statistics (accessed 1 February 2014).

Wikipedia: Talk: Potato: Edit Request (2012):

http://en.wikipedia.org/wiki/Talk:Potato#Edit_request_3 (accessed 1 February 2014).

Wikipedia: Talk Potato: Grammar review (2012):

http://en.wikipedia.org/wiki/Talk:Potato#Grammar review (accessed 1 February 2014).

Culture Unbound

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Wikipedia: Talk: Potato: Origin (2012): http://en.wikipedia.org/wiki/Talk:Potato#Origin (accessed 1 February 2014).

Wikipedia: Welcome to Wikipedia (2013):

<u>http://en.wikipedia.org/w/index.php?title=Main_Page&oldid=574690625</u> (accessed 1 February 2014).

Wikipedia: What_Wikipedia_is_not (2013):

http://en.wikipedia.org/w/index.php?title=Wikipedia:What_Wikipedia_is_not&oldid=59297093 0 (accessed 1 February 2014).

Wikipedia: Who is a low profile individual? (2013):

http://en.wikipedia.org/w/index.php?title=Wikipedia:Who_is_a_low_profile_individual&oldid= 536198548 (accessed 1 February 2014).

Wikipedia: Wikipedia (2013):

http://en.wikipedia.org/w/index.php?title=Wikipedia&oldid=584161882, (accessed 14/02/01).

Wikipedia: Wikipedianer (2014):

http://de.wikipedia.org/w/index.php?title=Wikipedia:Wikipedianer&oldid=126468958 (accessed 1 February 2014).